

a portion of the left mandibular ramus, in which only the last molar is sufficiently well preserved for identification. The latter is, however, perfect, and furnishes clear evidence of the former existence on the west side of the Rocky Mountains of a species distinct from the *H. americanus* Leidy, from the more eastern regions. The cones are in pairs and are directly opposed; their section is sub-trihedral, the two external sides of the external cones, forming a regular convexity. The cusps are acutely produced and slightly divergent. The posterior side of each outer cusp is excavated; the exterior side of the same presents a median rib with a concavity on each side, which is terminated below by an imperfect cingulum. The latter terminates on each side of the base of the cusp in a rudimental cusp, of which there are thus four on the external side of the tooth. The boundaries of the inner face of the external cusps are angular; the posterior one joins a corresponding ridge from the inner cusps, but there is no descending ridge on the anterior inner side of the internal cusp, which therefore forms no junction with the opposite part of the external cusp. The fifth cusp is well developed, and sends a crest inwards to the interior base of the interior cusp of the adjacent pair.

Measurements.

M.

Diameter of last inferior molar	{ antero-posterior.....	.022
	{ transverse.....	.010

This species is smaller than the *H. americanus*, and differs much in details. It is dedicated to Prof. Arnold Guyot, of Princeton, New Jersey.

*Descriptive list of medals struck to commemorate the Battle of Waterloo.
By Henry Phillips, Jr., A.M.*

(Read before the American Philosophical Society, Dec. 6, 1878.)

1. Medal by Pistrucci (never struck but reproduced by galvanism). *Obverse.* The Dioscuri in heaven. Zeus in a quadriga smites the Titans with a thunderbolt. *Reverse.* In profile are the heads of the emperors of Austria and Russia, and of the Kings of Prussia and Great Britain, surrounded by allegorical emblems representing peace.
2. *Obv.* Laureated profile facing right with inscription NAPOLEON EMPEREUR.
Rev. Victory holding a palm branch and hovering in the air over a mass of broken arms and trees. In the exergue, BATAILLE DU MONT ST. JEAN XVIII JUIN MDCCCXV.
3. *Obv.* Laureated profile facing right NAPOLEON BONAPARTE.
Rev. An eagle vanquished by vultures; WATERLOO. In the exergue, 18 JUIN 1815.
4. *Obv.* Three-quarter bust. WILH: FR: G: L: ARAUS. REGNI BELGICI PRINC: HEREDITAR.
Rev. Victory between two trophies of arms and the French flag. Vis

VIRTUTE REPRESSA. In the exergue, AD QUATRES BRAS D. XVI
JUNII MDCCCXV.

5. *Obv.* Bust facing right. ARTHUR DUKE OF WELLINGTON.

Rev. Two joined hands surrounded by a laurel wreath tied with ribbands, bearing the names of Wellington's victories. WATERLOO, JUNE XVIII MDCCCXV.

6. *Obv.* Bust facing left. DUKE OF WELLINGTON. Exterior legend. *England : Portl. : Spain : Suedⁿ. Russ^a. Pruss^a. Aust^a. Holl^d. et France. United 30th May 1814.*

Rev. Victory seated on a stand, holding in her right hand a palm branch and in the left a laurel. WELLINGTON. Upon the stand WATERLOO. Exergue, June 18, 1815. Exterior legend, *The hero of freedom, the pride of his country and the ornament of human nature.*

7. *Obv.* Two busts facing—HERZOG VON WELLINGTON. FÜRST VON BLÜCHER. Below the busts, IETTON.

Rev. A battle. SCHLACHT BEI LA BELLE ALLIANCE. Exergue, *v. : 15 : Bis 18, Jun. 1815.*

8. *Obv.* Bust facing right. HENRY WILLIAM MARQUIS OF ANGLESEY.

Rev. Mounted officer leading a squadron. CHARGE OF THE BRITISH AT WATERLOO. Exergue, JUNE XVIII MDCCCXV.

9. *Obv.* Profile facing right. WILHELM IV KOENIG V. HANNOVER. A : KOENIG D : V : R GROSS BRIT : U. IRL :

Rev. Victory on a column of triumph. DEN SIEGERN VON WATERLOO DAS DANKBARE VATERLAND errichtet Hanover D. XVIII. Jun. MDCCCXXII. Exergue, XVIII Jun. MDCCCXV.

10. *Obv.* Two heads facing each other under a laurel crown in a frame placed on standards : *La Belle alliance.* HERZOG VON WELLINGTON. FÜRST VON BLÜCHER. On the ground a sword, a buckler and a broken eagle, with these words, *S. Joan. Waterloo.*

Rev. A winged figure borne on clouds bearing a shield surrounded by inscription *M. S. Joan, Waterloo.* Inscription on shield in ten lines :

DEN
ANDENKEN
DER FÜR DIE
VERBUNDETEN HEERE
SO SIEGREICHEN
FÜR EUROPA'S WOHL
SO ENTSCHIEDENDEN
TAGE
DES 16 : 17 : 18 JUNI
1815.

11. *Obv.* Two heads facing: BLÜCHER WELLINGTON on a laurel crown.

Rev. DER SIEGGEGEWOHNTE HELDEN HERRLICHSTER SIEG VON GOTT
GEGEBEN ZUM UNVERWELKLICHEN LORBEERKRANZ. VERNICH-

TUNG DES MEINEIDIGEN FEINDES NACH VIER-TAEGIGER SCHLACHT
BEI LA BELLE ALLIANCE D. 18 JUNI 1815.

12. *Obv.* Two superposed heads in profile facing left. ALEXANDER I
FRIED WILHELM III.

Rev. Gothic pyramid. DANKBAR GEGEN GOTT EINGEDENK SEINER
TREUEN VERBUNDETEN UND EHREND DIE TAPFERKEIT SEINES
VOLKES LEGTE IN GEMEINSCHAFT MIT ALEKANDER I KEIZER VON
RUSSLAND FRIEDERICH WILHELM III, DEN 19 SEPTEMBER,
1818, DEN GRUNDSTEIN DES DENKMALS FUR DIE RUHMVOLLEN
EREIGNISSE IN DEN JAHREN 1813 : 1814 : 1815 :

13. *Obv.* Same pyramid. As a circular legend a list of the victories won
by the Prussians over the French, finishing with LA BELLE ALLI-
ANCE* LAON* BAR SUR AUBE* PARIS.*

Rev. An archaic German inscription. Around the German inscription,
"Monument at Berlin, made at the royal iron foundery at Berlin,
erected in 1820, inaugurated March 30, 1821."

14. *Obv.* Head of Blücher facing left, bust draped in a lion's skin. DEM
FÜRSTEN BLÜCHER VON WAHLSTATT DIE BÜRGER BERLINS IM
JAHR 1816.

Rev. St. Michael destroying the dragon ; below 1813 : 1814 : 1815.

15. *Obv.* Profile head facing right. BLÜCHER VON WAHLSTADT in a laurel
wreath.

Rev. The arms of Blücher below a ducal robe.

16. *Obv.* Profile facing right in a laurel wreath ; GNEISENAU.

Rev. Arms of Count Gneisenau.

17. *Obv.* Profile facing right. FRIEDE. WILHELM VON BRAUNSCHWEIG.

Rev. An armorial escutcheon, surrounded by a collar of an order and
charged with six bearings.

18. *Obv.* Right profile bust in a laurel wreath. WELLINGTON.

Rev. The arms of the duke.

19. *Obv.* Left profile, GUILLELMO HEROI DILECTO.

Rev. Four arms forming a cross. *Le* 16 Juni 1815.

20. *Obv.* Horseman galloping right. CROWN PRINCE OF ORANGE. HOL-
LAND'S GLORY.

Rev. Within a crown of palm and laurel. WATERLOO. JUNE 18, 1815.

21. *Obv.* Profile bust facing left. F. MAR. G. L. VON BLÜCHER. THE
LIBERTIES OF EUROPE REST^d BY THE UNITED EFFORTS OF ENG-
LAND AND HER AUGUST ALLIES THE PRELIMINARIES OF PEACE
SIGNED MAY 30, 1814. Profile bust facing right. ALEXANDER
EMP. OF ALL THE RUSSIAS.

Rev. Within a crown of palm and olive. IN ARMS INVINCIBLE IN
COUNCIL TRUE.

22. *Obv.* Profile facing left. THE DUKE OF WELLINGTON.

Rev. Same as No. 21.

23. *Obv.* Profile facing right. THE DUKE OF WELLINGTON.

Rev. WATERLOO.

24. *Obv.* Bust facing left. AUTHUR DUKE OF WELLINGTON.
Rev. Mausoleum, surrounded by a lion and two figures, with inscription, WELLINGTON, *born May 1769 died Sepr. 14, 1852.* Legend. BRITANNIA MOURNS HER HERO NOW AT REST. In the exergue, WATERLOO *June 18, 1815.*
25. *Obv.* Victory holding a sword in right hand and in her left a crown
Gott segnete die vereinigten heere.
Rev. *Bei la belle alliance durch Blücher und Wellington d. 18 June 1815.*
26. *Obv.* Same as 25.
Rev. DURCH DEN SIEGREICHEN EINZUG BLÜCHER UND WELLINGTON'S IN PARIS D. 7 JUNI 1815.
27. *Obv.* Trophy, formed of a helm, a sword, an olive branch and an owl.
Rev. SIEG BEI LA BELLE ALLIANCE DURCH HERZOG V. WELLINGTON UND FÜRSTEN V. BLÜCHER AM 18 JUNI 1815.
28. *Obv.* Laureated profile head facing left. GEORGIUS W. P. VICEM. REGIS BRITANNIARUM GERENS.
Rev. The Royal standard of England. Above WELLINGTON, below WATERLOO DIE JUN 18, 1815. On the edge, *Ponte Waterlooensi dedicato Jun 18, 1817.*
29. *Obv.* Profile facing right. GULIELMUS I BELGARUM REX.
Rev. The lion of Waterloo on the mound. MONUMENTUM WATERLOOEUM erectum M. D. CCCXXIV.
- 29½. *Obv.* Profile facing right. WILHEM I. KONING DER NEDERLANDEN.
Rev. The lion on a pedestal. In the exergue, WATERLOO.
30. *Obv.* Beneath the All-seeing-eye and within a wreath of palms, a lion armed with a sword and bearing a buckler charged with a bundle of arrows, protects a crown and sceptre under an orange branch. DEO. REGI. PATRIÆ. Exergue XVIII JUNI MDCCCXV.
Rev. Within an oak crown: SOCIETAS WATERLOANA MARTIO MILITUM ANIMO PROBATE FIDEI AUSPICE FREDERICO AUG. BELGARUM PR.
31. *Obv.* Laureated head, Prince Regent, facing left. GEORGE P. REGENT.
Rev. Victory seated with extended wings; above WELLINGTON, below WATERLOO JUNE 18, 1815.
32. *Obv.* Laureated head, facing right. GEORG PRINZ REGENT 1815.
Rev. Within two laurel branches WATERLOO, above is a cuirass placed on two swords and two flags. HANNOVERSCHER TAPFERKEIT.
33. *Obv.* Same, except head faces left.
Rev. Same.
34. *Obv.* Profile facing right. FRIEDERICH HERZOG ZU NASSAU.
Rev. Victory holding a palm and crowning a Roman warrior. DEN NASSAUISCHEN STREITERN BEY WATERLOO. Exergue, DEN 18 JUNI 1815.
35. *Obv.* Same head as 34, but larger. FRIEDERICH I. HERZOG ZU NASSAU.

- Rev.* Within a laurel crown placed on a trophy of flags, DER TAPFERKEIT.
36. *Obv.* Profile bust facing left. FRIEDERICH WILHELM HERZOG.
Rev. 1815 within a crown of oak and laurel. BRAUNSCHWEIG SEINEN KRIEGERN *Quatre Bras* UND WATERLOO.
37. *Obv.* F. W. surmounting a regal crown. Below, PREUSSENS TAPFERN KRIEGERN. Circular legend, GOTT WAR MITT UNS, IHM SEI DIE EHRE.
Rev. A cross between rays. 1815 in the centre of a laurel and oak crown. Below, AUS EROBERTEM GESCHÜTZE.
 The same medal also exists with the date 1813 and with the date $\frac{1813}{1814}$.
38. An oval medal bearing same emblems as the last. The inscription differs, and is FÜR PFLICHTTREUE IM KRIEGE.
39. *Obv.* A ducal coronet. FÜR DAS RECHT : IM KAMPFE.
Rev. A rose with five leaves surrounded by a circle and ten arches.
 Below, HERZOGTH : GOTHA UND ALTENBURG MDCCCXIV. MDCCCXV.
40. *Obv.* The letter "P" above a closed crown.
Rev. 1815 in a laurel wreath.
41. *Obv.* A battered head of an old person ; above, MEDAILLE DE WATERLOO ; below, AU DERNIER DES CHAUVINS VOILA TOUT CE QUI RESTE.
Rev. REVERS DE LA MEDAILLE. 15 Juin 1815. Legend, *A ses compagnons de raelée sa dernière parole...signè cambroune.*
42. *Obv.* Monument of Waterloo ; at the base, XVIII JUNI MDCCCXV.
Rev. *Souvenir du champ de bataille de Waterloo.*
43. *Obv.* Same monument ; *Champ de bataille de Waterloo.*
Rev. In an oak crown, SOUVENIR DE BELGIQUE.
44. *Obv.* Same as 43.
Rev. In a circle, DE HAZE ; MONT ST. JEAN.
 Circular legend, HOTEL DES COLONNES.
45. *Obv.* Peace in a cultivated field ; HEIL DEM FRIEDEN ! ER SEGNET REICH DIE ERDE.
Rev. An arch of triumph bearing the words, GLORIA ! EURE THATEN BEWUNDEREN MILLIONEN. Exergue, 1815.
46. A button ; *obverse*, Waterloo Juin 1815.
Rev. A landscape with the Church of Waterloo in the distance.
47. *Obv.* Liberty and Victory, holding in their hands a crown ; above a lion which has broken its chains, and a mass of arms. In the background the lion of Waterloo on its mound. EENDRAGT MAAKT MAGT. Exergue 1815, 1865.
Rev. An oak crown bound with bands charged with seven shields of armorial bearing. PR. V. ORANJE *Saxen Weymar perponcher Brunsryk-oels. Uxbridge* WELLINGTON. *Pieton. Bülow. Ziethen.* BLÜCHER.
48. *Obv.* Same as 47, without any inscription.
Rev. The lion of Waterloo. Below, 1815. *Herinnering aan het halve eeuwfeest 18 Junij 1865. Waterloo.*

49. *Obv.* Laureated profile and bust of Prince of Orange (Wm. III) facing left. **DE HELD VAN WATERLOO.**
Rev. An antique warrior descended from a horse is crushing with an enormous stone a conquered foe. *Neerlands Roem 18 Junij 1815 plegtig herdacht. 18 Junij 1865 Exergue, De tiranny verslagen.*
50. *Obv.* A lion on a pedestal encircled by a trophy of arms and flags. On the pedestal, **XVIII JUNIJ MDCCCXV.** *Legende, WATERLOO 1815-1865.*
Rev. The crowned escutcheon of the Netherlands supported by those of England and Prussia. Below, on a ribband, *Je maintiendrai. TER HERINNEG aan de roemrijke dagen van 1815.*
51. *Obv.* A helmet, sword and palm beneath the word **WATERLOO**, on which the sun is shedding its rays. Below, **16—18 Junij 1815.** *Exergue, MDCCCLXV.*
Rev. In a laurel crown *De strik is gebroken, en wij zyn outkomen.* **Ps. CXXIV v^s 7.**
52. *Medullion.* The lion on its pedestal with the date **XVIII Juny MDCCCXV** surrounded by oak and laurel branches; below, **DEUS NOSTER REFUGIUM ET VIRTUS.** On the edge **1815—1865. WELLINGTON, BLUECHER, ORANJÉ.**
53. *Obv.* Bust facing left. *Georg v. v. g. g. Kœnig v. Hannover.*
Rev. In a laurel crown, *Den Siegern bei Waterloo gewidmet am 18 Juni 1865.* On the edge *Nec aspera terrent.*
54. *Obv.* The arms of the City of Hanover. **STADT HANNOVER DEN SIEGERN V. WATERLOO 18 JUNI 1815.**
Rev. In a laurel crown, *Zur 50 Jahrgen jubelfeier am 18 Juni 1865.*

Stated Meeting, December 6, 1878.

Present, 13 members.

Vice-President, Mr. FRALEY, in the Chair.

Letters accepting membership were received from C. Schorlemmer, F.R.S., Professor of Organic Chemistry, Owens College, Manchester, Nov. 4, 1878, and from M. A. Des Cloizeaux, Paris, Nov. 10, 1878.

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